

REMARKS

Pursuant to a telephone conference conducted on February 8, 2005, between attorney for applicants and Examiner Weiner, entry of this amendment and consideration of the following remarks is respectfully requested.

The Rejection of Claims 14, 15, 19, 21, 24, 25, 31, 32, 38, and 58 Under 35 U.S.C. § 102(b)

Claims 14, 15, 19, 21, 24, 25, 31, 32, 38, and 58 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamaguchi et al. (JP3-98632, translation), evidenced by Mizutani et al. (U.S. Patent No. 3,647,086). The Examiner states that, "Yamaguchi et al. teaches on page 19, example 1, a polyethylene microporous membrane irradiated with plasma then immersed into 4% by volume of an aqueous methyl acrylate solution."

Applicants understand that the Examiner considers methyl acrylate to be an ion-exchange group, by the statement, "Mizutani et al. teaches in column 1, lines 62-71, membranes made from monomers having functional groups can be changed to ion exchange groups. An exchange group can be vinyl sulfonic acid esters, methyl methacrylate, methyl acrylate, etc." Applicants understand the Examiner is relying on Mizutani to provide evidence to show methyl acrylate is an ion exchange group.

Applicants first respectfully direct the Examiner to page 4, third complete paragraph, of the present application, defining the term "ion-exchange group" as referring to "a group, which carries and easily release proton, such as  $-\text{SO}_3^-$  from  $-\text{SO}_3\text{H}$  group."

Claims 14, 24, 31, 38, and 58, have been amended to include the definition from the specification. Applicants submit such amendment is not new matter and does not require additional search or consideration by the Examiner.

Furthermore, according to the *Manual of Patent Examining Procedure*, "when the specification states the meaning that a term in the claim is intended to have, the claim is

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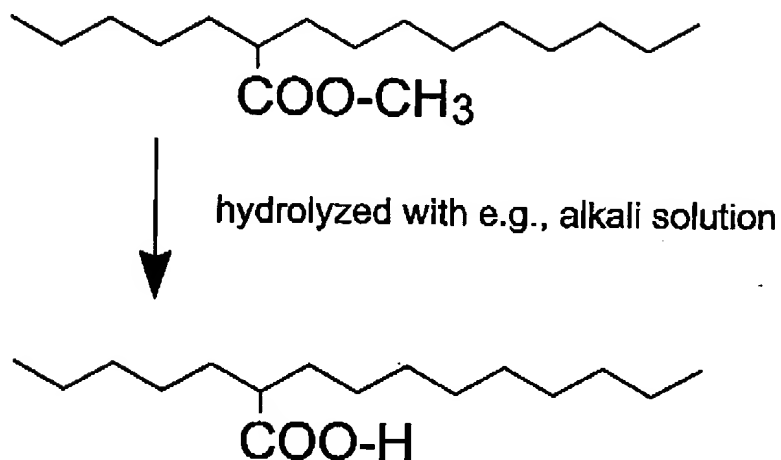
examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art." *In re Zletz*, 893 F.2d 319, 13 U.S.P.Q.2d 1320 (Fed. Cir. 1989). M.P.E.P. § 2173.05(a), pages 2100-195, August 2001.

Returning to Mizutani, analysis of the passage relied upon, teaches that the examples (e.g., vinyl sulfonic acid esters, styrene sulfonic acid esters, methyl methacrylate and methyl acrylate) refer to the esters of vinyl monomers, which are examples of functional groups, and are not meant to be examples of ion exchange group. Note that methyl methacrylate and methyl acrylate are classified as esters.

Therefore, Mizutani is not evidence of methyl acrylate being an ion exchange group, as claimed.

Furthermore, methyl acrylate does not fit applicant's definition of "ion exchange group", which is meant to carry and easily release a proton. As described in the amendment filed on November 8, 2004, methyl acrylate disclosed in Yamaguchi (JP-A No. 3-98632) cannot carry and easily release a proton. On the other hand, a polymer derived from a monomer having an ion-exchange group; e.g., poly(acrylic acid) described in the EXAMPLE of the present application can carry and easily release a proton. The difference between poly (methyl acrylate) and poly (acrylic acid) is shown below.

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Accordingly, Claims 14, 15, 19, 21, 24, 25, 31, 32, 38, and 58 are novel and nonobvious over Yamaguchi (JP-A No. 3-98632) alone or in combination with Mizutani et al. (U.S. Patent No. 3,647,086).

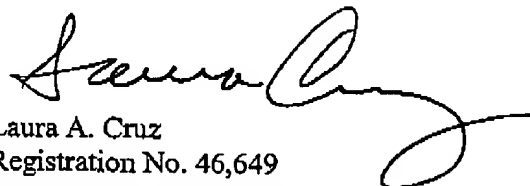
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CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully request passing the application to early issue. If the Examiner has any further questions that may expeditiously result in a notice of allowance, the Examiner is invited to contact the applicants' attorney at the number provided below.

Respectfully submitted,

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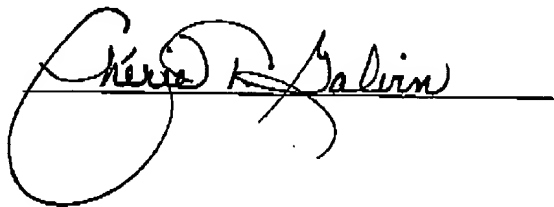
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I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, Group Art Unit 1745, Examiner L.S. Weiner, at facsimile number 703.872.9306 on March 9, 2005.

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